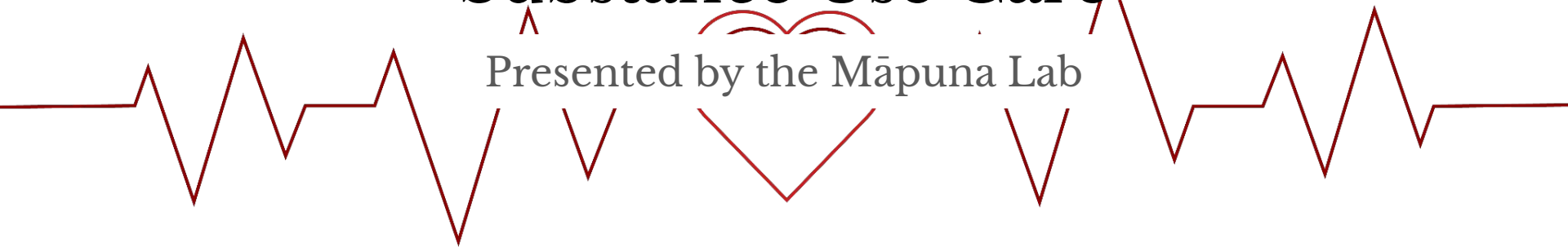




Intersections of Health & Technology in Substance Use Care

Presented by the Māpuna Lab



Opening Protocol

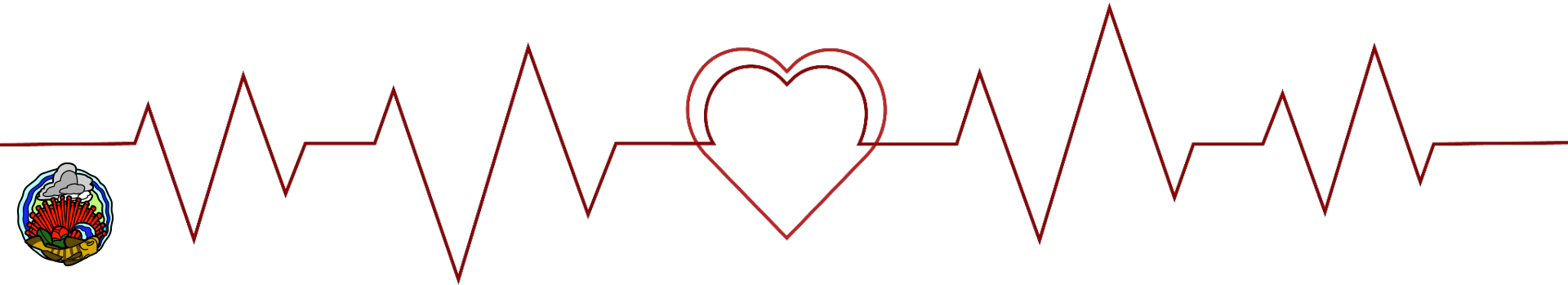


Image Description:

Depicted to the right is an **ahu** adorned with ho'okupu of pū'olo, lēi lā'i, and pa'akai symbolizing the wealth of blessings and knowledge that our training series offers to participants this summer.

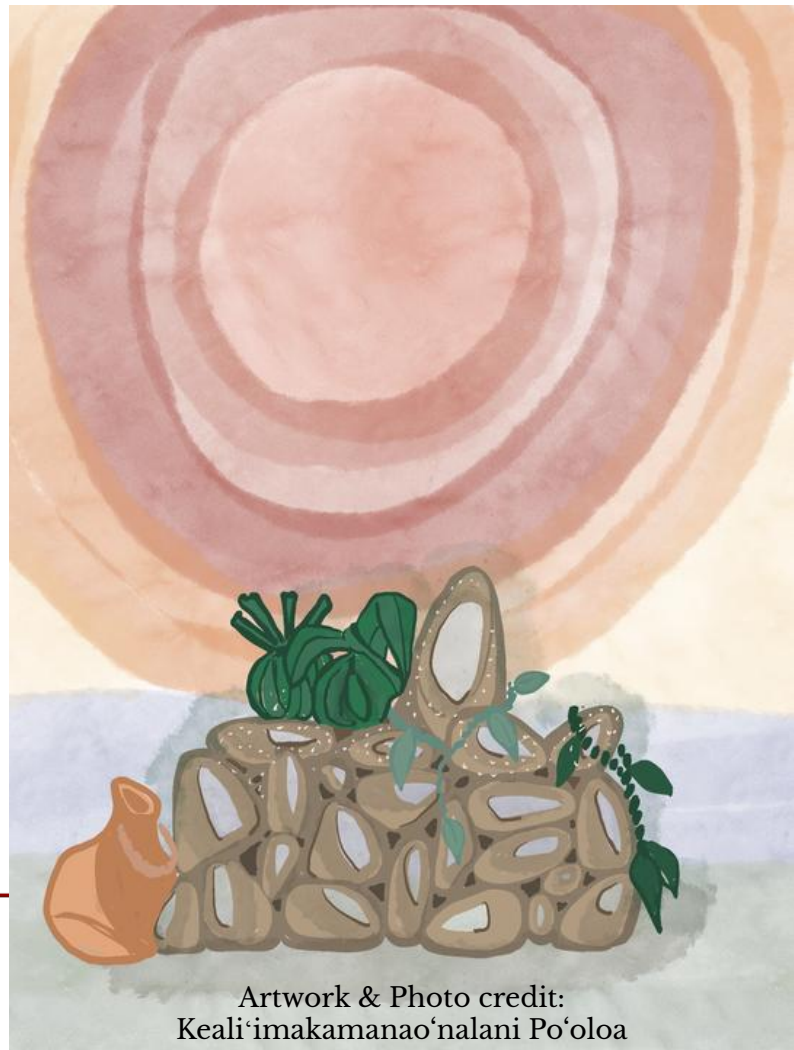
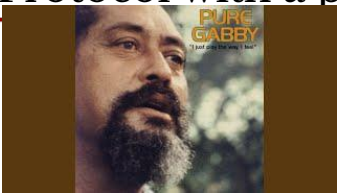
Please take some time to introduce yourself in the chat.

Who are you?

What mountain and waters do you belong to?

Where are you tuning in from?

If you have the means to do so, feel free to grab some water and a bite to eat before settling in. We'll begin the Opening Protocol with a pū shortly.



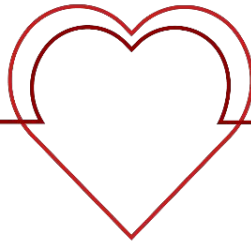
Artwork & Photo credit:
Keali'imakamano'nalani Po'oloa

Hū Ka Wai Māpuna

Arranged by Kauilanuimakehaikalani Kealiikanakaoleohaililani

Hū ka Wai Māpuna
Māpuna kapu ka hāhā
Ha‘a inu, Ha‘a ola
Ha‘a kapu, Ha‘a noa
E nā kupukupu
O nā kupuna e
E mālama ka māpuna
Mālama ka māpuna e
I ola loa e, i maui ola e.

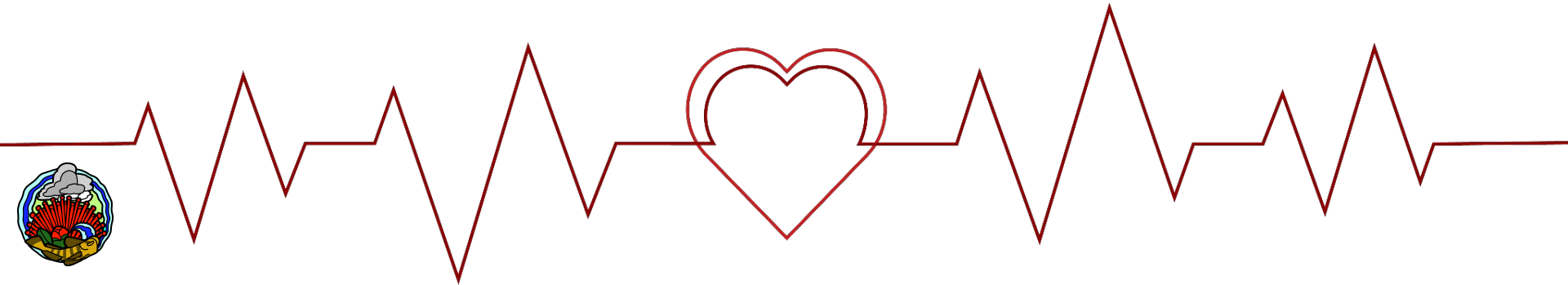
Conflict is the catalyst for evolution
More to surface, less to hide
Held by systems of ancestral resilience
I sustain the process of truth-telling,
healing, and emotional intelligence
to heal generational trauma and disparity
to go beyond performative health
to truly be well



‘O Wai Au

‘O wau ‘o Marion Ano. Noho mai ma Nu‘uanu.

‘O Uakoko ku‘u ua. ‘O Ko‘olau ku‘u mauna!



Ho‘i ka ‘o‘opu ‘ai lehua i ka māpunapuna

The lehua-eating goby returns to the spring.

Said of one who has gone back to the source.

(Pukui #1034)

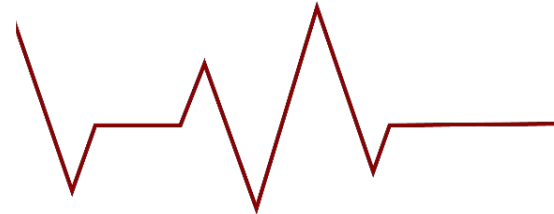
The **MĀPUNA LAB** is a place of respite for those experiencing colonial trauma. Our work is na‘au centered and focused on health and healing. Guided by ‘ōhi‘a lehua as our teacher, an endemic Hawaiian tree, we work in reciprocity and partnership in healing the chronic and existential pain of historical and intergenerational trauma with our Pacific Islander brothers and sisters.

Viewing the land as our communities and health as water cycle resilience, the lab looks to the cloud catching, truth-telling, ‘ōhi‘a lehua (*Metrosideros polymorpha*) for ways to ho‘i ka wai, to remove seen and unseen emotional blockages to restore waters (waiwai) stolen by trauma.

Aimed at creating safe spaces for co-learning, the Māpuna Lab convenes all those who believe that when Indigenous leadership is uplifted, wellness is accessible to all.



Mapunalab.com

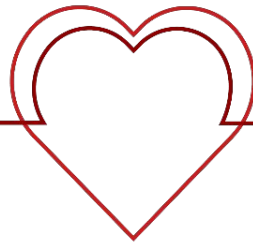


Learning Objectives

Participants will engage in an immersive learning experience and learn how the Intersections of Health & Technology fit into the SAMHSA's Working Definition of Recovery.

Participants will learn to navigate ethics within the intersections of technology and substance use care using *The Impacts of Colonization on Ahupua'a. Conceptualization, V3.0*.

Participants will understand how to utilize *The Impacts of Colonization on Ahupua'a. Conceptualization, V3.0* to improve the integration of health and technology, as it relates to substance use and recovery.



Agenda

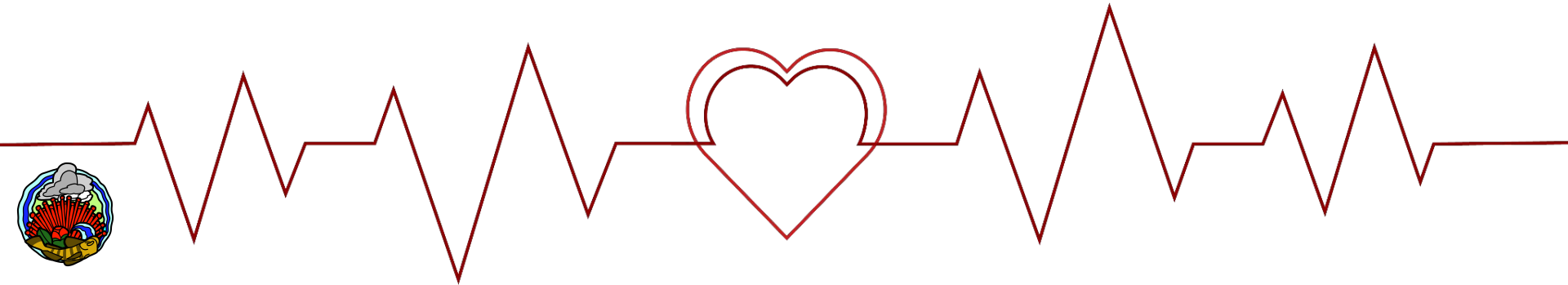
1. Opening Protocol
2. Consent to Deepen
3. A Brief Landscape of Intersections of Technology & Healthcare
4. Ethics of Technology in Healthcare
5. Break
6. The Use of AI in Food System Planning and Policy Formation
7. Future of Technology in Health
8. Closing Protocol



Consent To Deepen

E nā kupukupu o nā kupuna, e mālama ka māpuna

It is through our ancestral memory we acknowledge our systems of support that surround us, bear witness to our own resiliency, so that we may participate in the process of truth-telling, healing and emotional intelligence.



Framework Overviews:

SAMHSA's Working Definition of Recovery

"A standard, unified working definition [of recovery] will help advance recovery opportunities for all Americans, and help to clarify these concepts for peers, families, funders, providers, and others."

- Hope
- Purpose-Driven
- Many Pathways
- Holistic
- Peer Support
- Relational
- Cultural
- Addresses Trauma
- Strengths/Responsibility
- Respect

12 Core function of a Substance Abuse Counselor (CSAC)

Substance abuse counselors are expected to show competency in the 12 Core Functions of substance abuse treatment.

- Screening
- Intake
- Orientation
- Assessment
- Treatment Planning
- Counseling
- Case Management
- Crisis Intervention
- Client Education
- Referral
- Report and Record Keeping
- Consultation with other Professionals in Regard to Client Treatment and Services



[SAMHSA's Working Definition of Recovery](#)

[CSAC](#)

Papa Ola Lōkahi

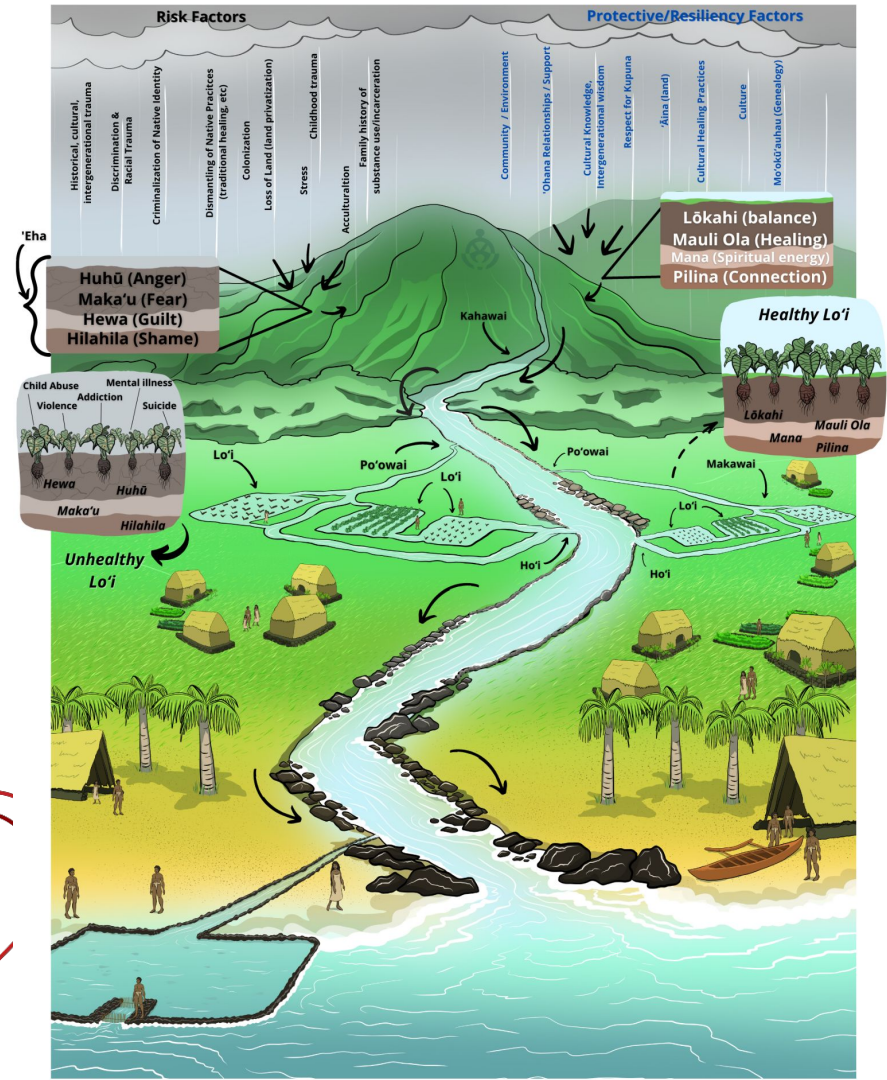
The Impacts of Colonization on Ahupua'a. Conceptualization, V3.0

Questions to consider:

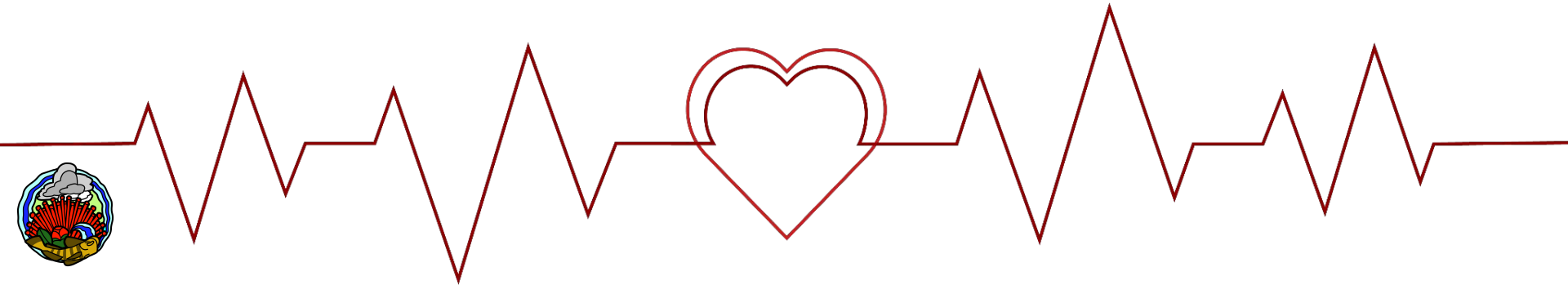
What is your ahu?

What is your pua'a?

[Ahupua'a Model](#)



A Brief Landscape of the Intersections of Health & Technology



Digital Health

“Is the intersection between health and technology and uses **technological methods** and processes to **improve people’s well-being** while also empowering patients to make better-informed decisions about their health.”



What is Digital Health?

Telehealth

“uses of digital information and communication technologies to access health care services remotely and manage your health care.”



What is Digital Health?

mHealth

“is an abbreviation for **mobile health**, a term used for the practice of medicine and public health supported by mobile devices.”

Wearables

Mobile Apps



Wearable Technology: Apple Watch

User Centric

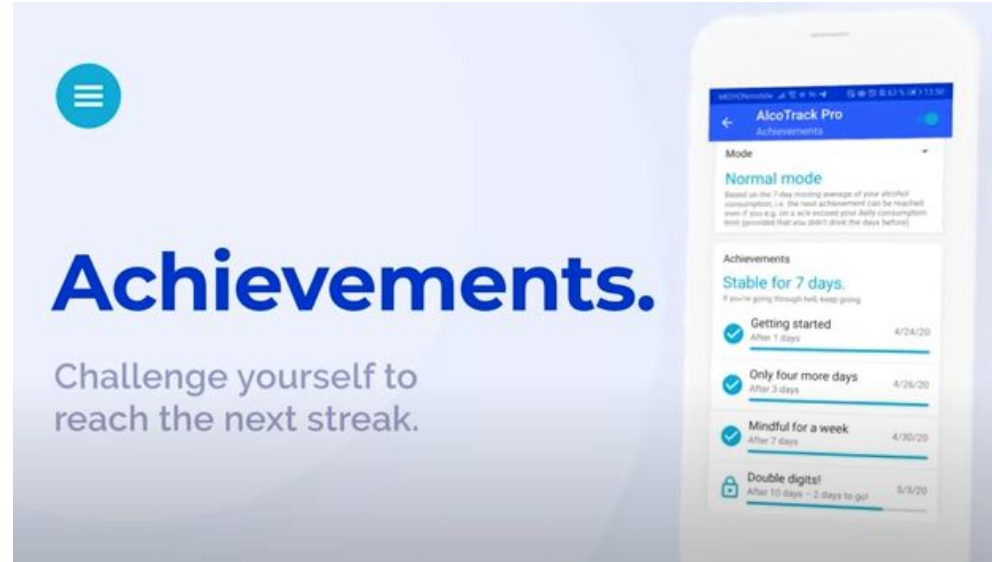
“This user centric and data rich user experience that Apple provides its customers could lead to more engaged, responsive, accurate, and self-reporting behavior.”



Mobile App: AlcoTrack

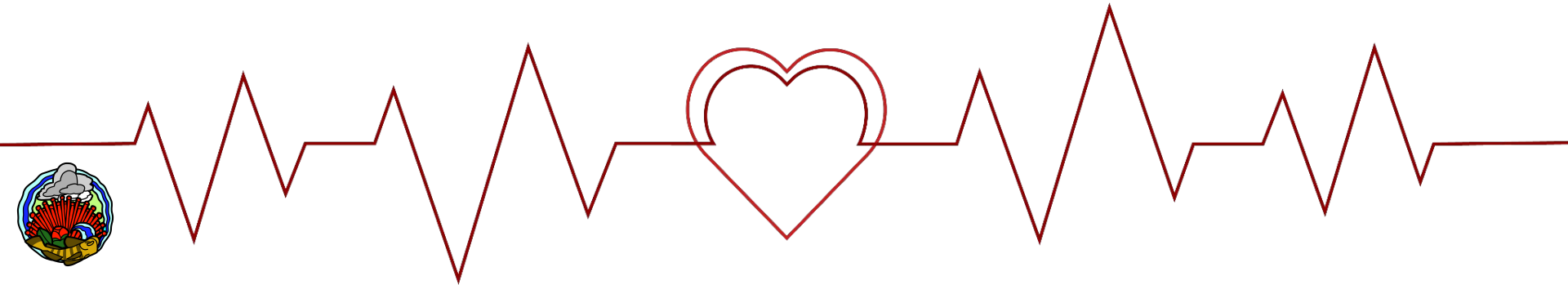
User Empowerment

“Enabling users to self-report and engage in real-time progress and receive consistent feedback can be an important step towards self empowerment & understanding.”



What Jobs Can Digital Health Products Accomplish?

Healthcare Providers	Patients
+Streamline processes	+Improve Communication
+Reduce Costs	+Provide Access to Services
+Improve Patient Care	+Manage Health & Well-being



Examples of Digital Health Tools Regimen in Substance Use Care?

Stage of Care	Assessment	Treatment	Support	Prevention
Digital Health Tools	<ul style="list-style-type: none">• Telehealth	<ul style="list-style-type: none">• Mobile Coursework• Synchronous Online based coursework	<ul style="list-style-type: none">• ChessHealth	<ul style="list-style-type: none">• AlcoTrack (Self Reporting app)• Apple Watch• Fitbit



How Can the Ahupua‘a model guide digital health moving forward?

Stage of Care	Assessment	Treatment	Support	Prevention
Digital Health Tools	<ul style="list-style-type: none">• Telehealth	<ul style="list-style-type: none">• Mobile Coursework• Synchronou s Online based coursework	<ul style="list-style-type: none">• ChessHealth	<ul style="list-style-type: none">• Self Reporting Apps,• Wearables
Integrate Ahupua‘a Model	+Historical, cultural, intergenerational trauma	+Community and environment	+‘Ohana Relationships	+Cultural Knowledge +Mo‘okū‘auhau



How Can We Move Digital Health Forward in This Context?

“Empowering patients to make better-informed decisions about their health”

Improving
& Uncertain



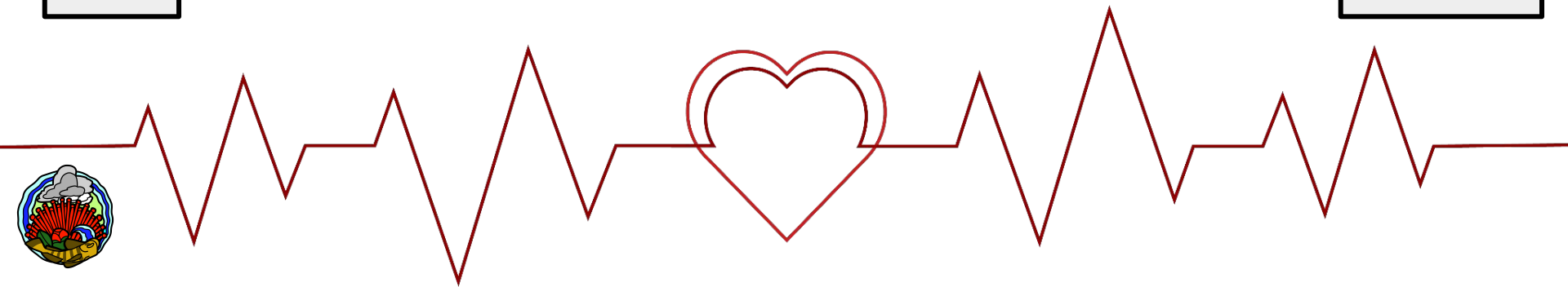
Supported
&
Empowered

“Can Digital Health Guided by the Ahupua‘a Model move us towards healing?”

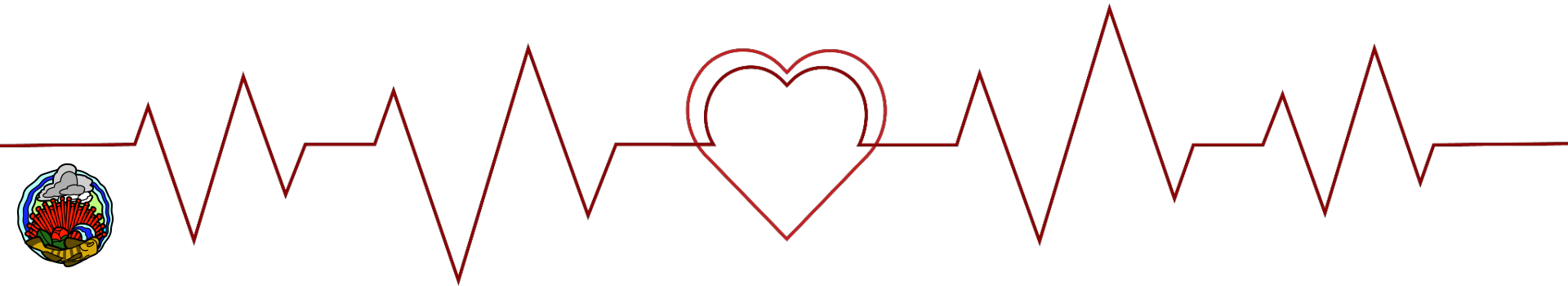
Risk



Resiliency



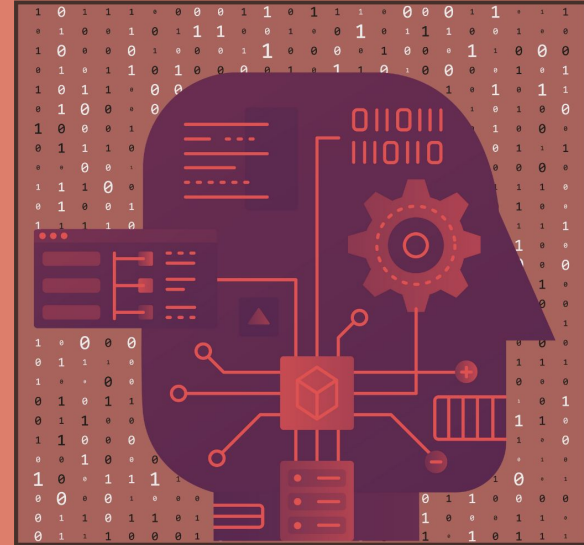
Ethics of Technology in Healthcare



What are some ethical concerns regarding the intersection of technology and health?

1. Technological capacity

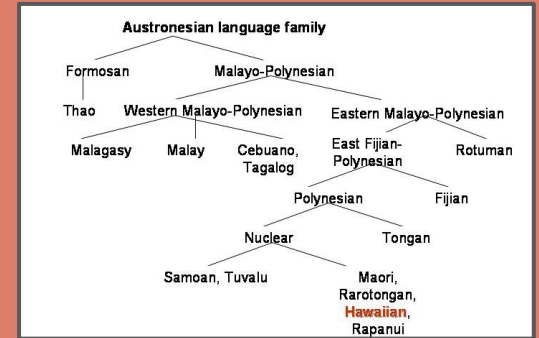
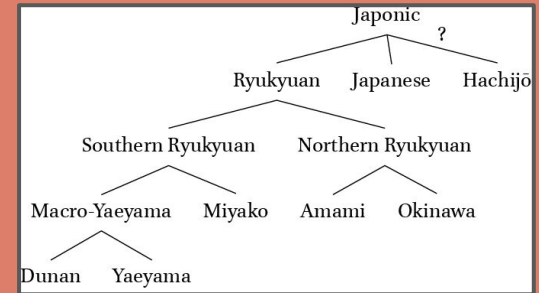
- a. Algorithms don't question information
- b. Data \neq knowledge



What are some ethical concerns regarding the intersection of technology and health?

2. Cultural capacity

- a. AI determining which lives to value
- b. Harvesting data
 - i. Plagiarism
 - ii. Intellectual property rights
 - iii. Exploitation
- c. Distortion of Indigenous culture
 - i. Cultural appropriation
 - ii. Teaching and recreation of biases
 - iii. False histories
 - iv. Inaccurate or biased data sources



What are some ethical concerns regarding the intersection of technology and health?

3. Care capacity

- a. Pilina
 - i. Individual-provider
 - ii. Individual-‘ohana
 - iii. Individual-community
 - iv. Individual-‘āina



Hanalei Poi Company's Lo'i on the North
Shore of Kaua'i, Hawai'i
(Studio Keala'ula)

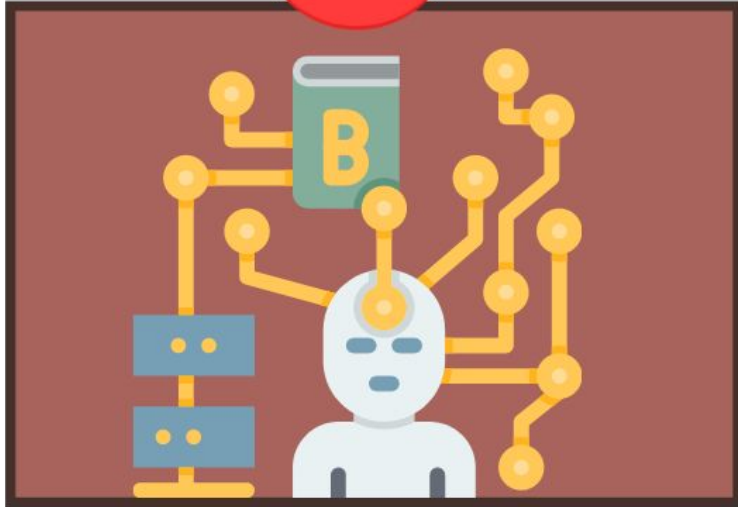


What are some ethical concerns regarding the intersection of technology and health?

Technological capacity	Cultural capacity	Care capacity
Data ≠ knowledge	Quality of data may disadvantage minorities	Lack of pilina
Algorithms don't question information	AI determining which lives to value	
	Harvesting data without consent risks abuse	
	Distortion of Indigenous culture	



Can technology be a replacement for substance use care?

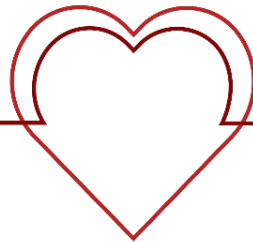


What are important ethical codes to have in place for the development of AI and digital health for substance use care?

Pilina

Data
sovereignty

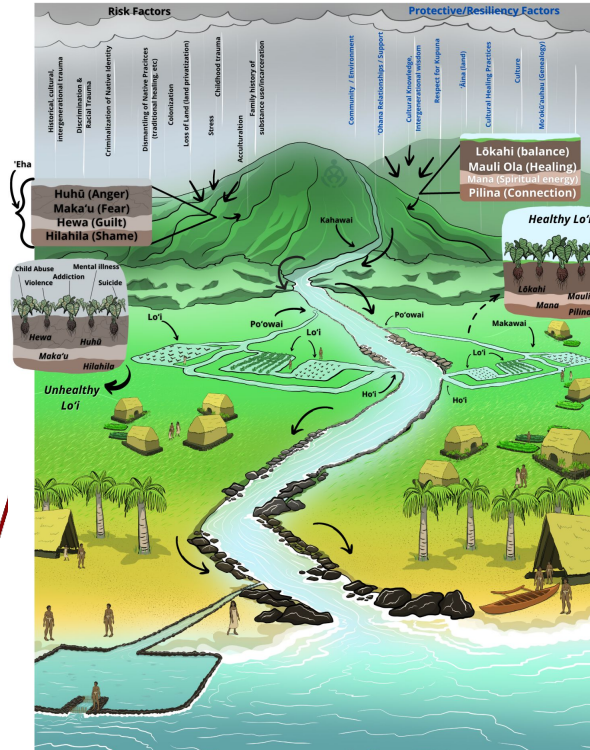
Self
determination



How can we utilize the ahupua‘a model to help us build out the ethical codes for our communities?

Risk factor that technology addresses:

- Acculturation: Dominant modes of thought/narratives of history



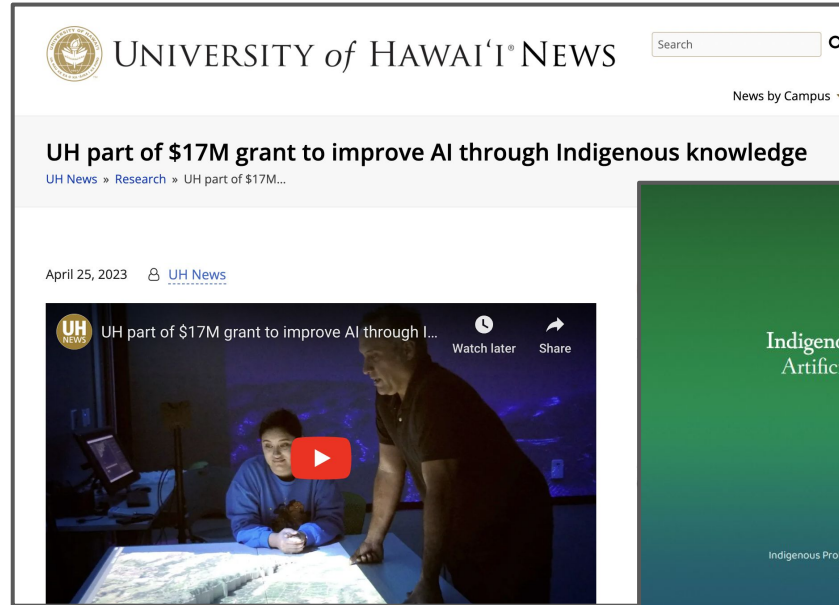
Protective/resiliency factors that technology offers:

- Community/Environment: Harnessing what's out there
- Cultural knowledge: Technology is a tool for knowledge

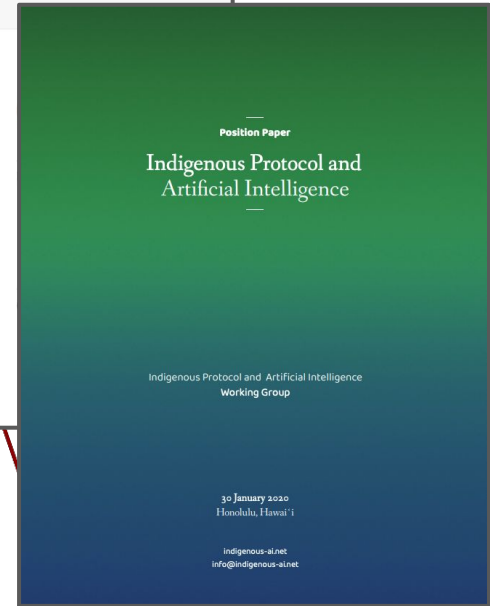


New Frontiers in Research Fund

- UHWO Create(x) digital emerging lab
- Project: “Abundant Intelligences: Expanding Artificial Intelligence through Indigenous Knowledge Systems,”



[UH part of \\$17M grant to improve AI through Indigenous knowledge](#)

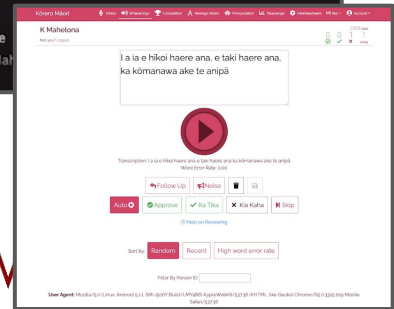
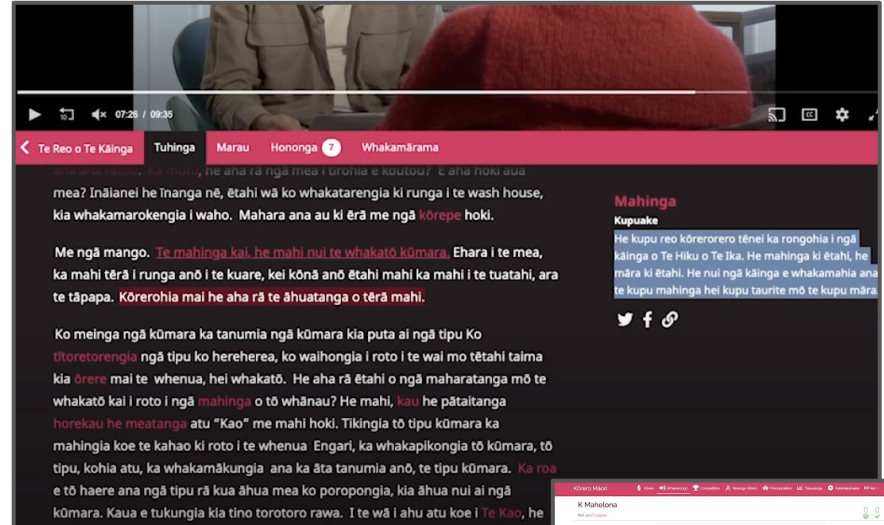


[Indigenous Protocol and Artificial Intelligence Position Paper](#)



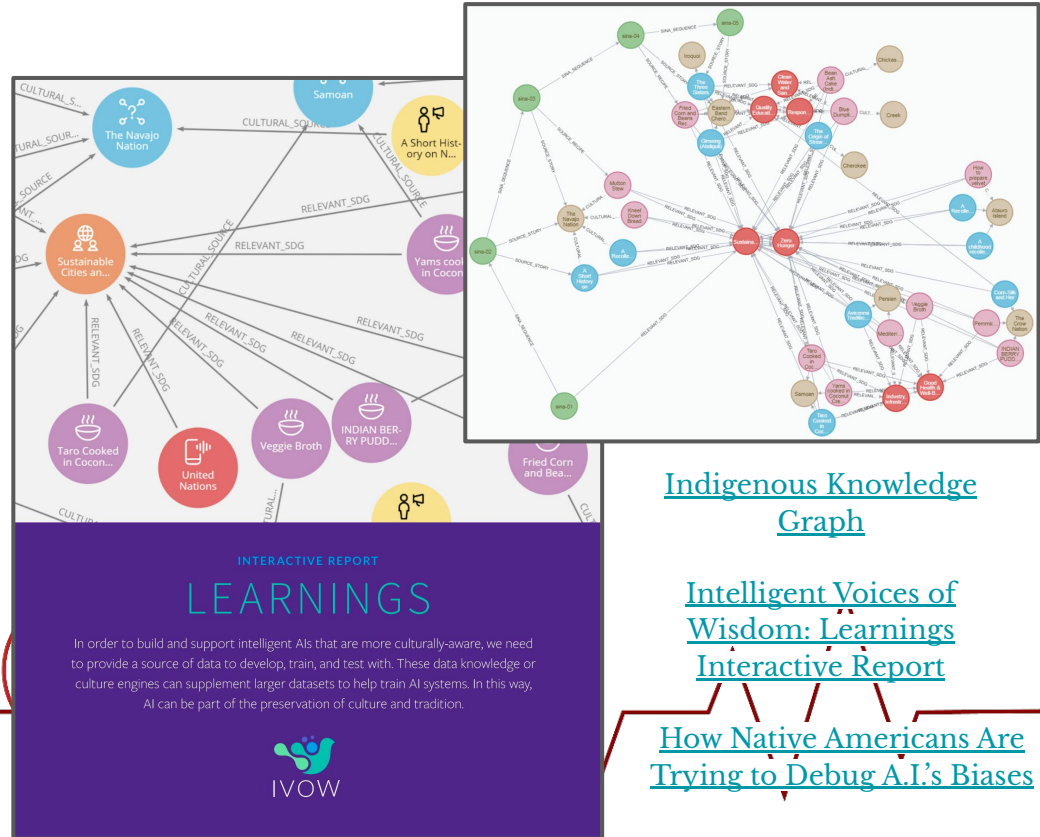
Te reo Māori Speech Recognition

- A story of community, trust, & sovereignty
- By Te Hiku Media
- Presented by Keoni Mahelona



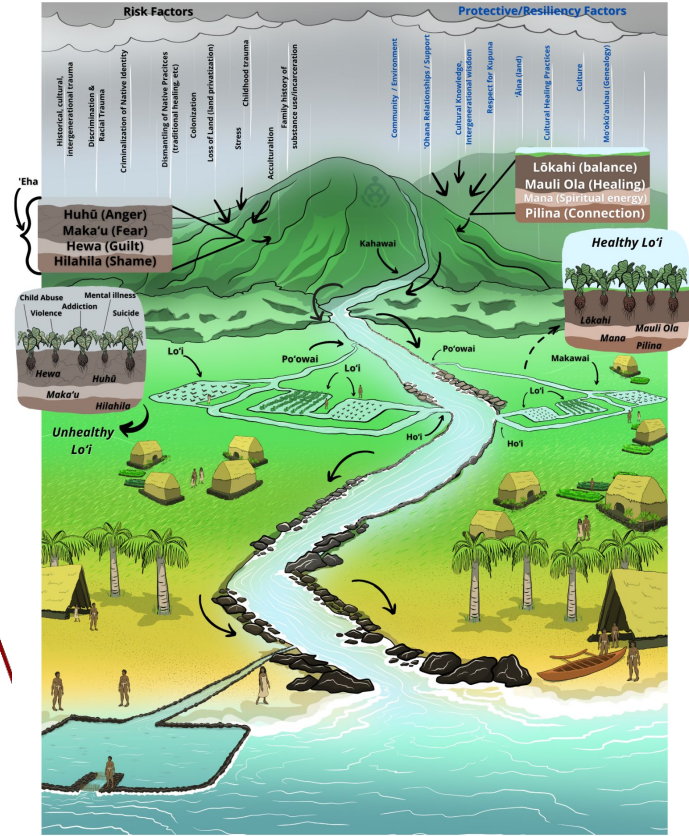
Indigenous Knowledge Graph (IKG)

- By Intelligent Voices of Wisdom (IVOW)
- To preserve culture through AI and counter biases



How do we ensure that technology does no harm?

- The only “right way” to develop technology is by the people for the people
- Pilina, data sovereignty, and self determination



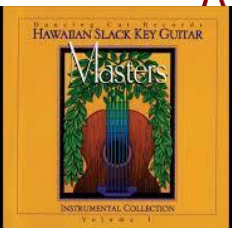
Break



Word Search

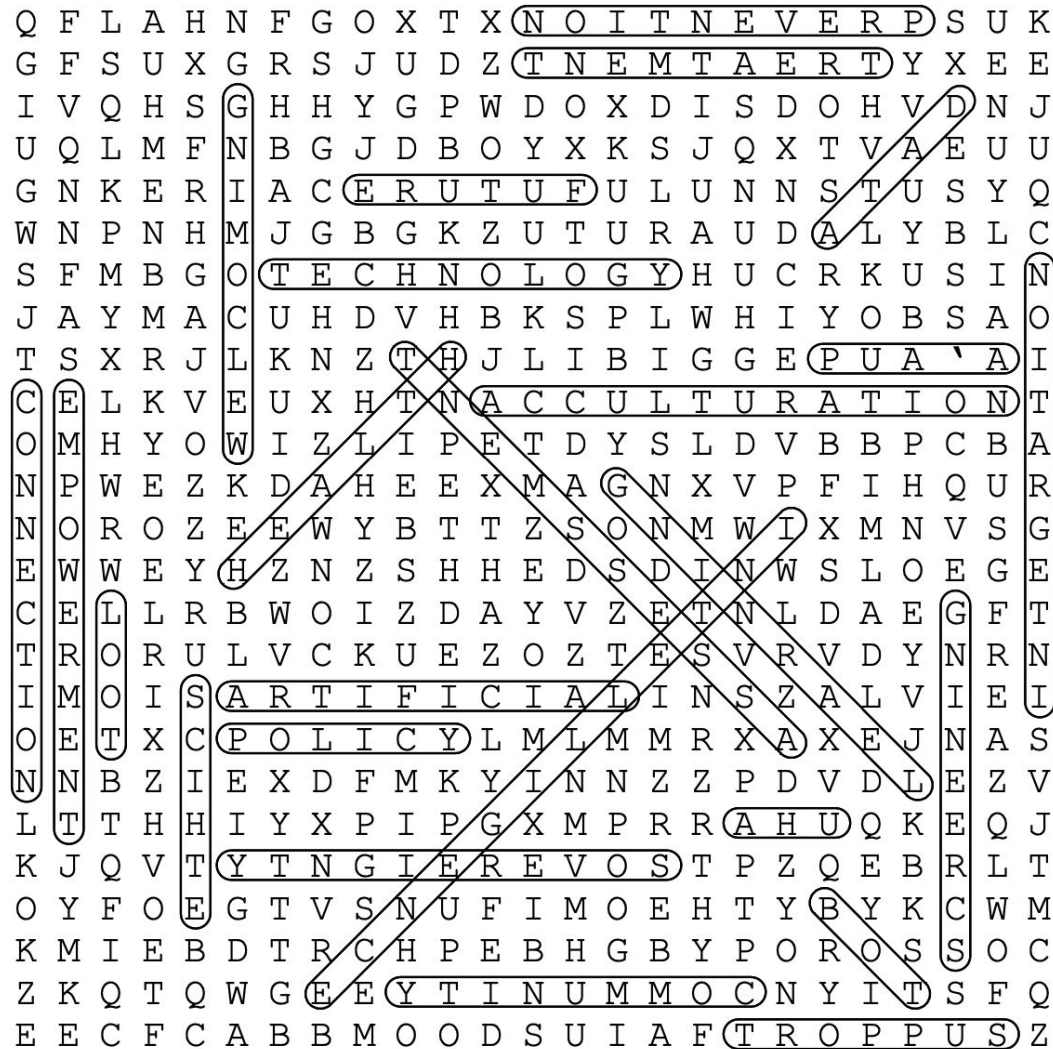
1. Ahu
2. Pua'a
3. Health
4. Technology
5. Empowerment
6. Assessment
7. Treatment
8. Support
9. Prevention
10. Ethics
11. Tool
12. Data
13. Sovereignty
14. Acculturation
15. Policy
16. Artificial
17. Intelligence
18. Future
19. Integration
20. Bot
21. Learning
22. Screening
23. Community
24. Connection
25. Welcoming

Q F L A H N F G O X T X N O I T N E V E R P S U K
G F S U X G R S J U D Z T N E M T A E R T Y X E E
I V Q H S G H H Y G P W D O X D I S D O H V D N J
U Q L M F N B G J D B O Y X K S J Q X T V A E U U
G N K E R I A C E R U T U F U L U N N S T U S Y Q
W N P N H M J G B G K Z U T U R A U D A L Y B L C
S F M B G O T E C H N O L O G Y H U C R K U S I N
J A Y M A C U H D V H B K S P L W H I Y O B S A O
T S X R J L K N Z T H J L I B I G G E P U A ' A I
C E L K V E U X H T N A C C U L T U R A T I O N T
O M H Y O W I Z L I P E T D Y S L D V B B P C B A
N P W E Z K D A H E E X M A G N X V P F I H Q U R
N O R O Z E E W Y B T T Z S O N M W I X M N V S G
E W W E Y H Z N Z S H H E D S D I N W S L O E G E
C E L L R B W O I Z D A Y V Z E T N L D A E G F T
T R O R U L V C K U E Z O Z T E S V R V D Y N R N
I M O I S A R T I F I C I A L I N S Z A L V I E I
O E T X C P O L I C Y L M L M M R X A X E J N A S
N N B Z I E X D F M K Y I N N Z Z P D V D L E Z V
L T T H H I Y X P I P G X M P R R A H U Q K E Q J
K J Q V T Y T N G I E R E V O S T P Z Q E B R L T
O Y F O E G T V S N U F I M O E H T Y B Y K C W M
K M I E B D T R C H P E B H G B Y P O R O S S O C
Z K Q T Q W G E E Y T I N U M M O C N Y I T S F Q
E E C F C A B B M O O D S U I A F T R O P P U S Z

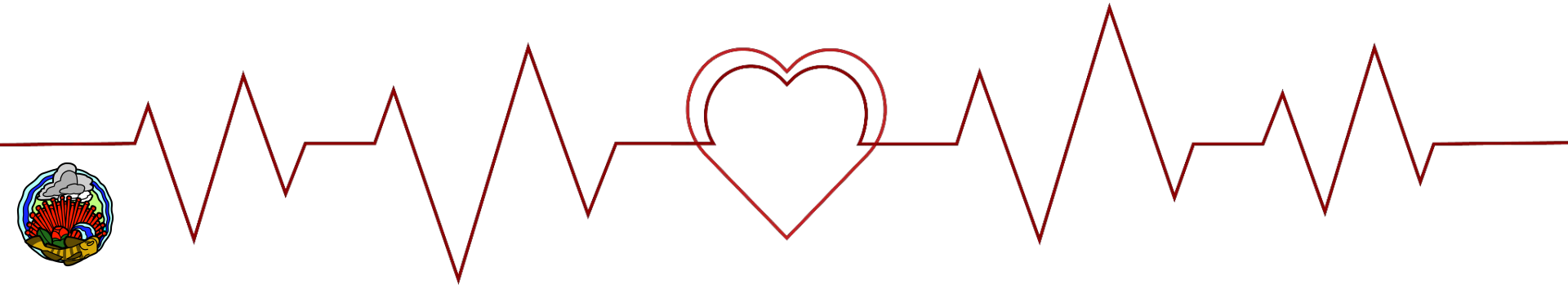


Word Search Answers

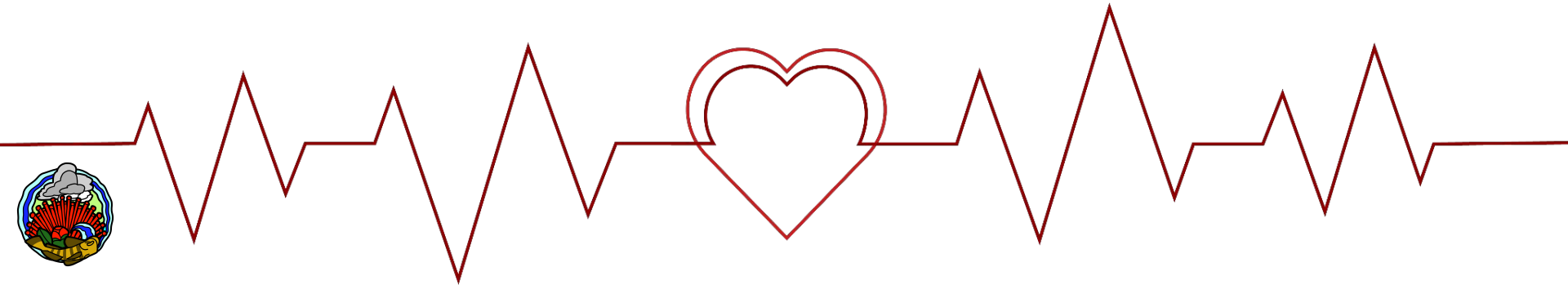
- | | |
|----------------|-------------------|
| 1. Ahu | 13. Sovereignty |
| 2. Pua'a | 14. Acculturation |
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| 10. Ethics | 22. Screening |
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| | 25. Welcoming |



The Use of AI in Food System Planning and Policy Formation



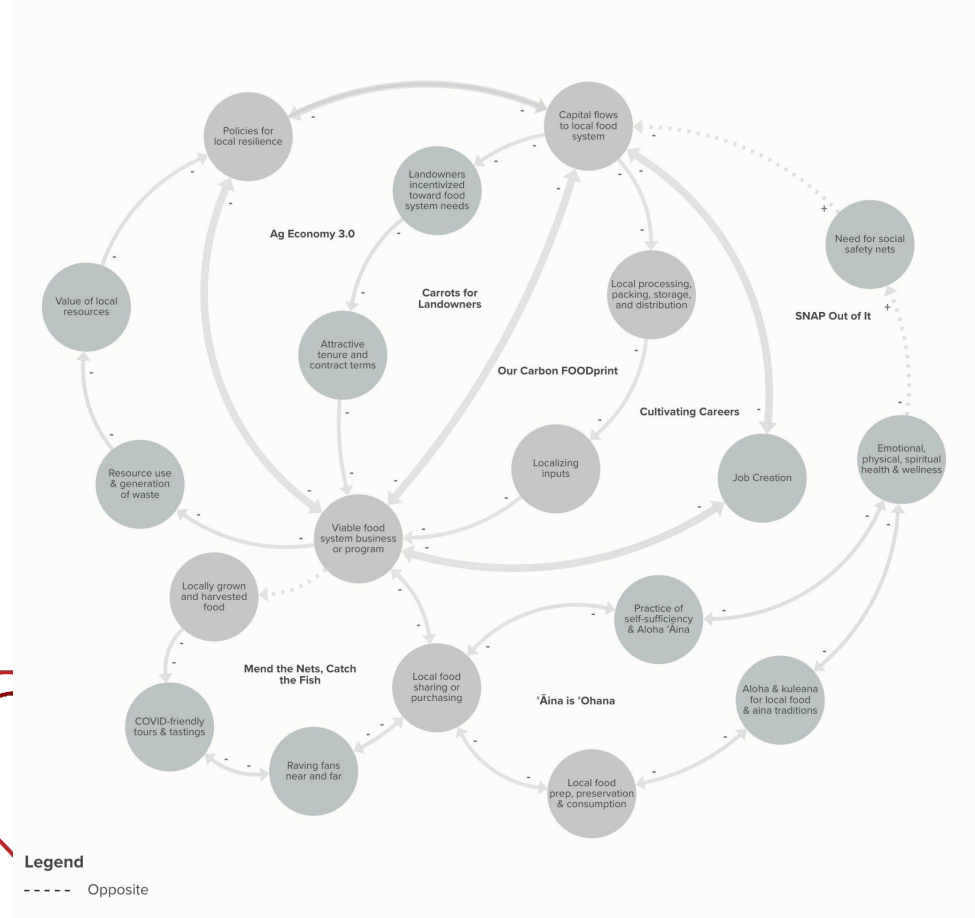
Background on Planning Leading to Policy Formation



What is a Food System?

Food System

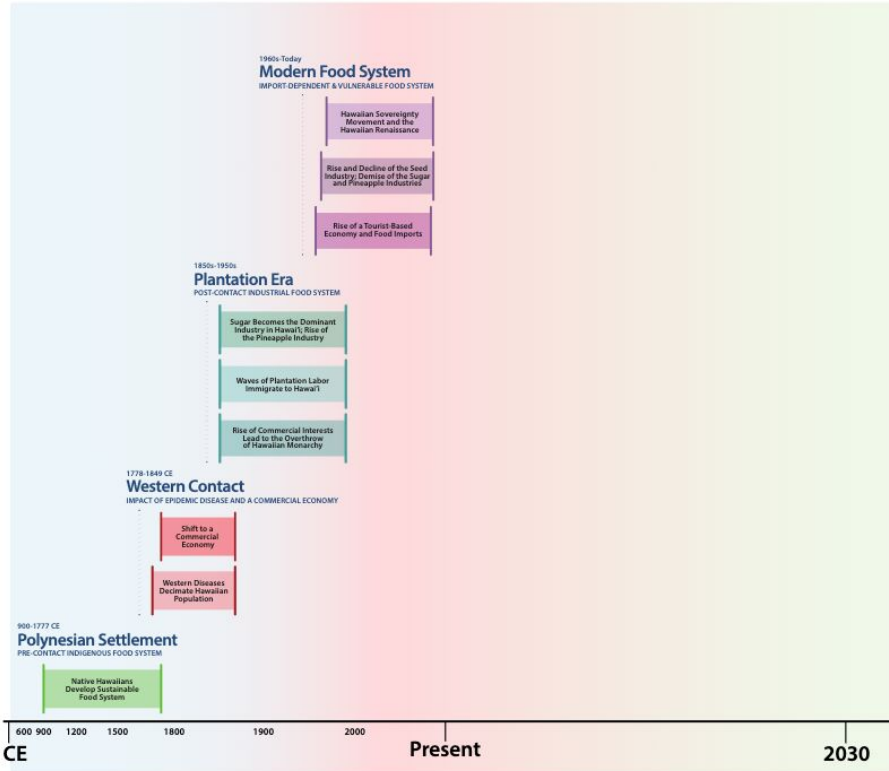
“A food system is the socio-ecological system that encompasses all the drivers, activities and resources that go into producing, distributing, consuming food and waste disposal. The food system intersects with aspects of public health, culture, society, economics, public policy, and the environment.”



History

Hawai'i Food System Change Map: History

Version 1.7.6 - September 2022



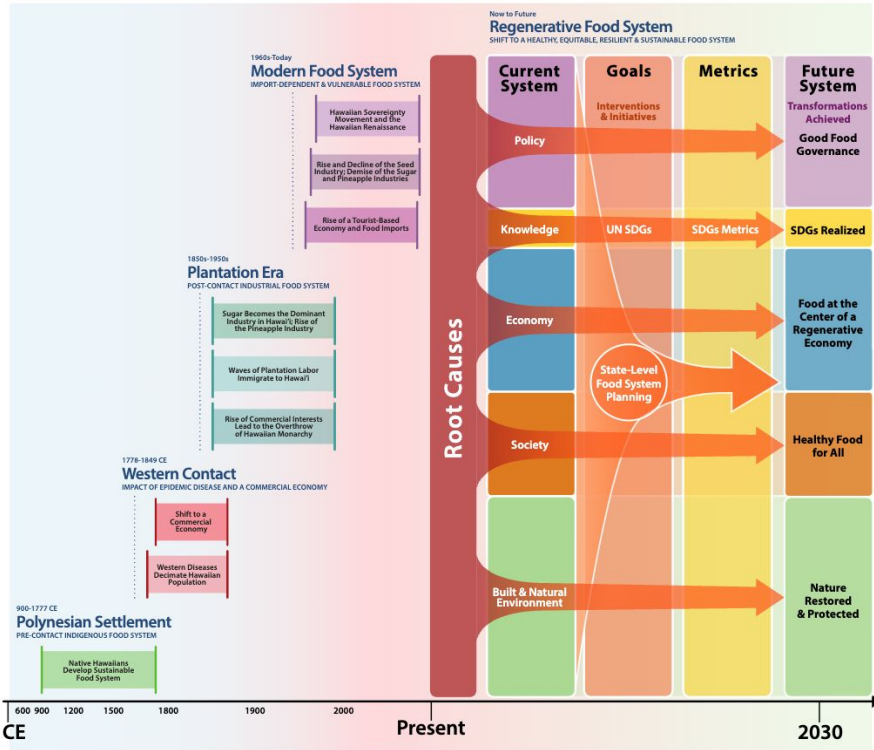
[TransformingHawaiiFood SystemTogether.org](https://transforminghawaii.org)



Theory of Change

Hawai'i Food System Change Map: Theory of Change

Version 1.7.8 - September 2022



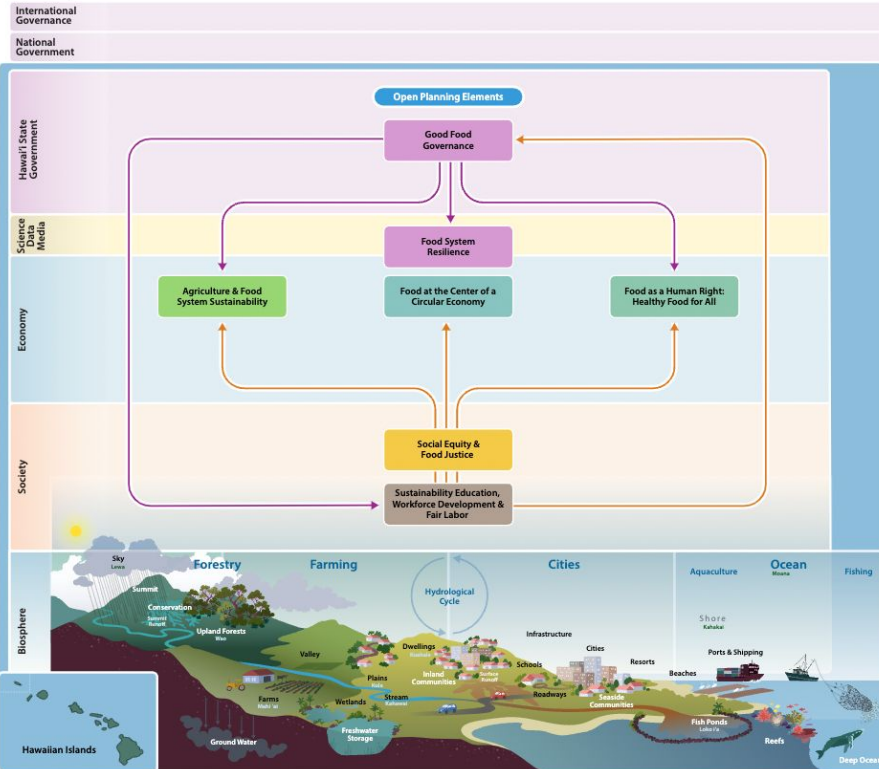
[TransformingHawaiiFoodSystemTogether.org](https://www.TransformingHawaiiFoodSystemTogether.org)



Planning Elements & Metrics

Hawai'i Food System Change Map: Planning Elements & Metrics

Version 1.7.6 - September 2022



[TransformingHawaiiFood SystemTogether.org](https://transforminghawaii.org)



UNIVERSITY OF HAWAII
1907-1967
SUSTAINABLE GOVERNANCE FOOD SYSTEMS

Transforming Hawaii's
FOOD SYSTEM

HAWAIIAN
FISH

NEXIAL

Integrated State Food Policy Framework

7 Food System Planning Themes

Food System Planning Themes identify important areas and issues of food system planning, implementation and monitoring and evaluation.

[View Themes](#)

1. Food As A Human Right: Healthy

[1.1 Public Health & Nutrition](#)

[1.2 Household Food Security](#)

[1.3 Food Safety](#)

2. Social Equity & Food Justice

[2.1 Social Equity & Food Justice](#)

[2.2 Secure & Affordable Land Access](#)

1.1 Public Health & Nutrition

Key Terms & Definitions:

[Key Terms & Definitions](#)



Current Status:

[View Current Status](#)



Root Causes:

[View Root Causes and/or Risk Factors](#)



Integrated Food Policy Approach To Solutions:

[View Policy Approaches](#)



Goals:

[View Sustainable Development Goals](#)



Indicators & Metrics:

[View Indicators & Metrics](#)



Integrated State Food Policy Framework

7 Food System Planning Themes

Food System Planning Themes identify important areas and issues of food system planning, implementation and monitoring and evaluation.

[View Themes](#)

1. Food As A Human Right: Healthy I

[1.1 Public Health & Nutrition](#)

[1.2 Household Food Security](#)

[1.3 Food Safety](#)

2. Social Equity & Food Justice

[2.1 Social Equity & Food Justice](#)

[2.2 Secure & Affordable Land Access](#)

Integrated Food Policy Approach To Solutions:

[View Policy Approaches](#)

Informed by key Hawaii stakeholders, the THFST Knowledge Products, the landscape analysis of US food system plans, and the scientific literature – puts forward a set of complementary policies to systemically address a key food system issue (e.g. household food security). The integrated policy approach would include the following components and prioritized “interventions”:

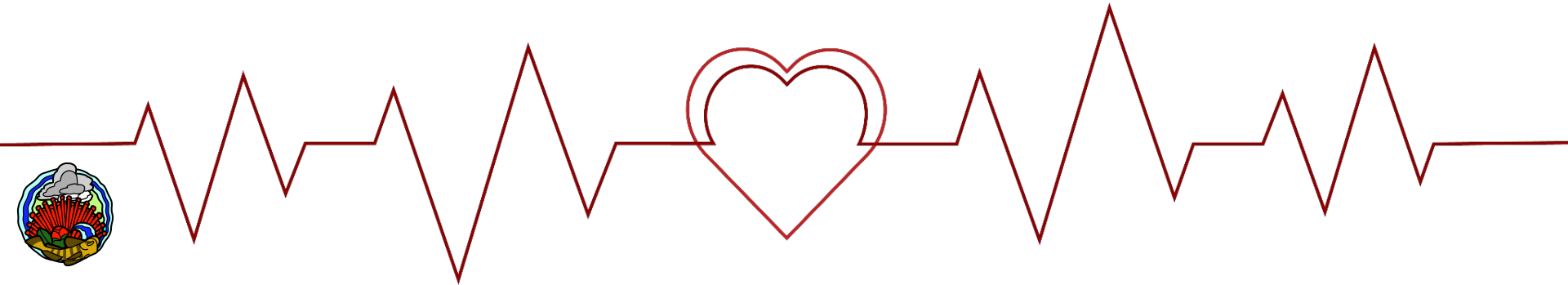
The USDA recently reframed the discourse on food security to include nutrition security:²³

[Nutrition security](#) (PDF, 203 KB) builds on the important work USDA and its partners are doing to promote food security by increasing the Department’s focus on diet-related chronic diseases – a leading cause of death in the U.S. Nutrition Security further emphasizes the importance of tackling long-standing health inequities. Research shows communities of color, families with children, and people in more isolated areas of the country, including Tribal communities, are disproportionately affected by the toll of diet-related chronic diseases.

Earlier work done by the Hawaii Public Health Institute, City and County of Honolulu and the Hawaii Pacific University as part of the [Independent Dialogues of the UN Food Systems Summit](#), has informed the growing body of knowledge on a social determinants framework for food systems in relation to health and nutrition outcomes.²⁴At the first discussion, a round-table discussion on “Our health, our food systems, our islands, our people”²⁵ interventions pointed to the need to look at the determinants of health and food systems and identify their convergence points. As the determinants of the food system will be tackled in other parts of this document, the determinants of the health system as it converges with the food system includes housing, employment wages, language and most importantly education and school system. In



Moving Forward: Iterating Food System Policy Formation Using AI & Applied Research Methodologies

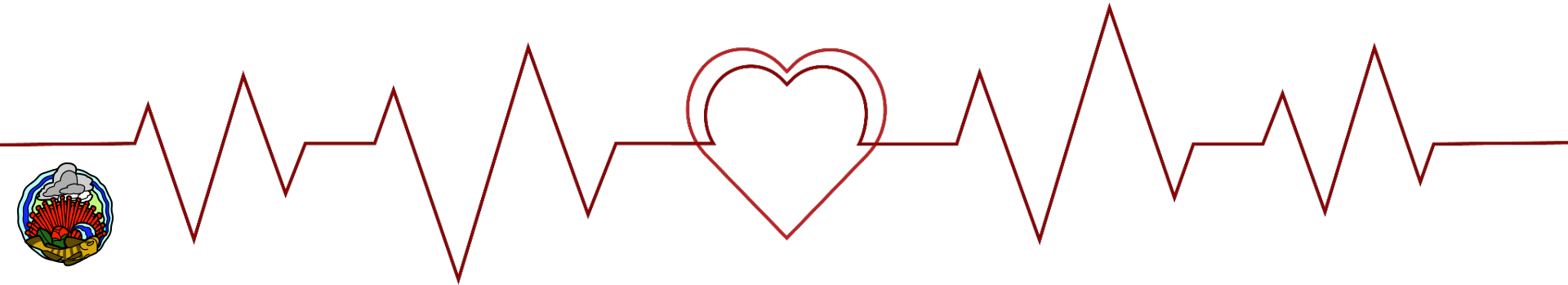


Three Tier Approach

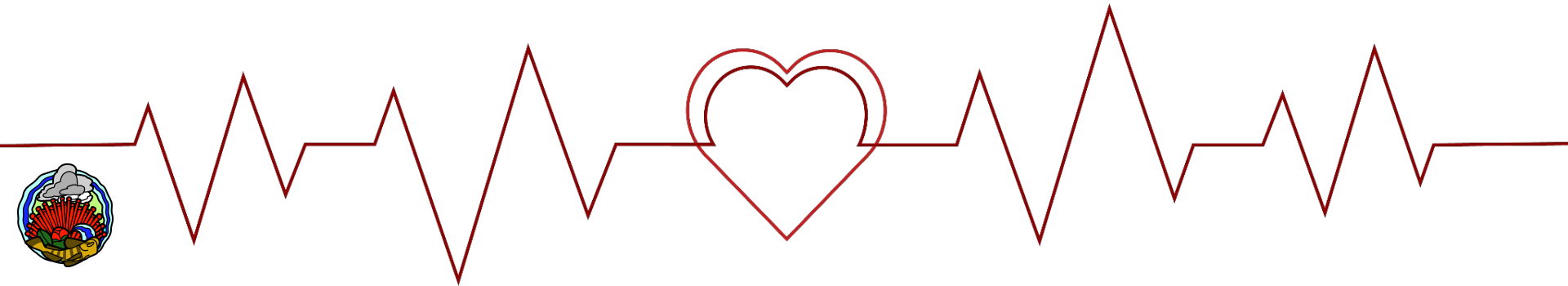
Step 1: ChatGPT	Step 2: Technical Expertise and Peer Review	Step 3: Literature Mining
Obtain general policy recommendations (not localized)	<ul style="list-style-type: none">-Ground general recommendations with technical expertise and conduct peer review that is localized and conducted within communities.-Local Communities are defining the key indicators and metrics	Review scientific literature that are known to have the most effective public policy



Demo



Future of Technology in Health



What might the future of health systems & technology look like?

AI integrated into healthcare!

SuiSensor

- AI Algorithm in development by Siddhu Pachipala
- Self-Assessment for suicide risk
 - 98% accuracy with sample data
- Semantics in writing might provide insight into suicide risk

AI Assisted Surgery

- Helpful to predict issues in other fields of medicine
 - (acute kidney injury, circulatory failure, etc.)
- Potential for predictive analysis of surgical success rates
- Optimize workflow during surgery

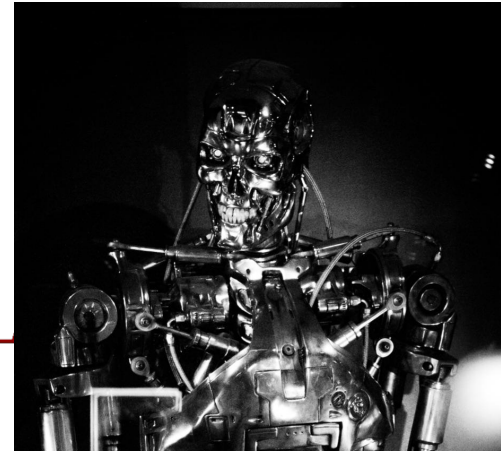


[SuiSensor](#)

[AI Assisted Surgery](#)

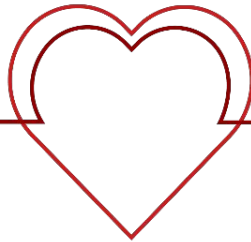
What is Artificial Intelligence?

- "The theory and development of computer systems able to perform tasks that normally require human intelligence, such as visual perception, speech recognition, decision-making, and translation between languages" - Oxford Languages



How can artificial intelligence be integrated into our health management?

- Screening Process
 - Core function 1 of a Substance Abuse Counselor (CSAC Function 1)
 - Different from current screening filters
 - More dynamic
- Connection to the Ahupua‘a model
 - Creating Community & a Welcoming Environment
 - ‘Ohana Relationships & Support
 - Help to develop closer relationships with others



Building Community & A Welcoming Environment: ChatGPT Demo:

"I am an AI language model called ChatGPT, developed by OpenAI. I have been trained on a diverse range of data sources and have the ability to generate human-like responses to text-based prompts. My purpose is to assist and provide information on a wide variety of topics to the best of my knowledge and abilities. However, it's important to note that I don't possess personal experiences, emotions, or consciousness. I'm here to help answer your questions and engage in meaningful conversations."

Question 1:

I'm worried about my kids. They've been more distant recently, and I'm scared that their mental health might be in decline. What should I do?

Question 2:

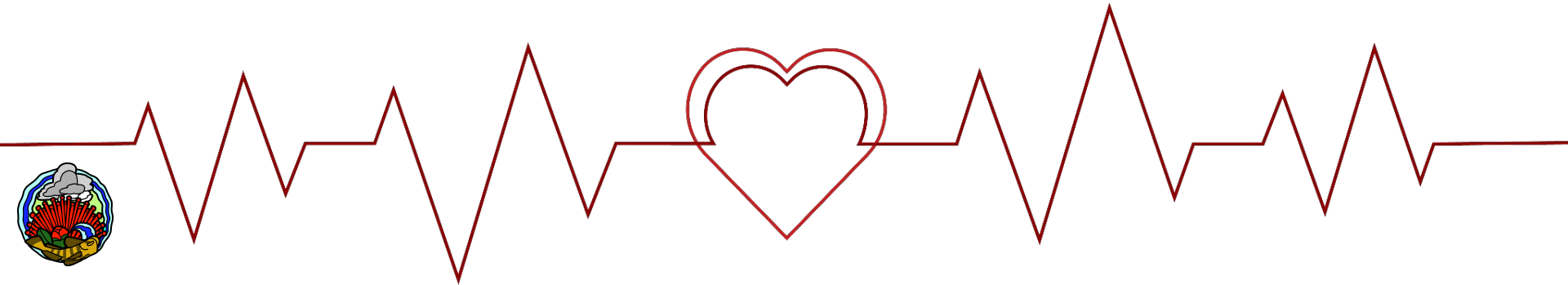
I want my kids' mental health to improve, but I don't know what to do. Who can I ask for help?



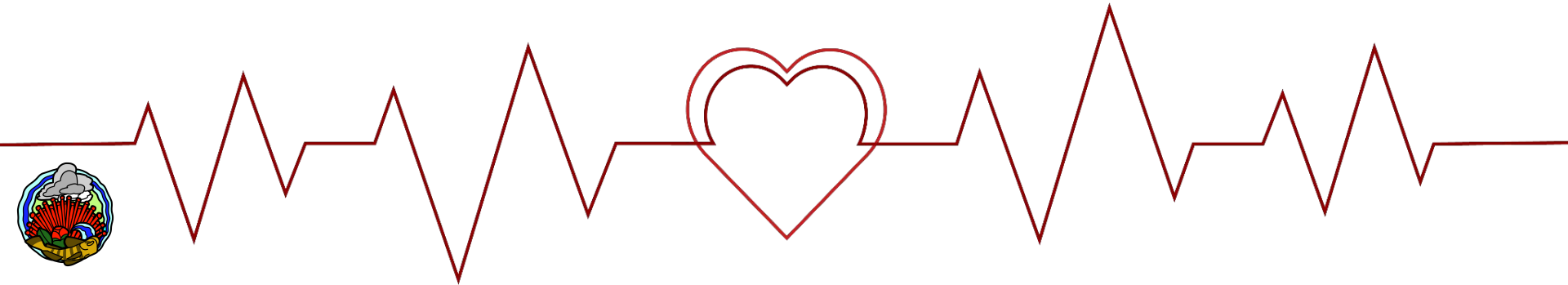
How can artificial intelligence help empower patients and practitioners?

Find out on July 20, from 12 - 1:15pm HST:

Patient and Practitioner Empowerment through AI



Closing Protocol



Mana'o I'o

Respond at

PollEv.com/mapunalab361

Or Text

[MapunaLab361 to 37607](Text:MapunaLab361 to 37607)



Database Shoutout & Sharing

mapunalab.com/hanai-ahu/webinar-one/

Hānai Ahu Webinar One Resource Database

Please search and view resources gathered and curated for Hānai Ahu Webinar One.

Resource Type:

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Title:

Title

View Resource:

View Resource

Tags:

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Clear filters

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Show 10 entries

Search:

Resource Type	Title	View Resource	Tags
Online Article	Digital Health: The Intersection of Technology and Healthcare	View Resource	Digital Health
Video	Perspectives From the Intersection of Health Care and Technology	View Resource	Digital Health
Online Article	A Brief History of Digital Health	View Resource	Digital Health
Online Article	Leveraging Technology to Enhance Addiction Treatment and Recovery	View Resource	Digital Health
mHealth App	Addiction-Comprehensive Health Enhancement Support System (A-CHESS)	View Resource	Digital Health

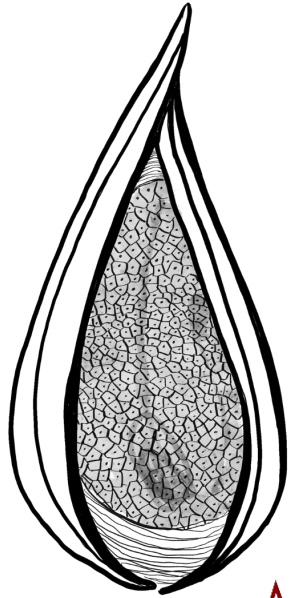


Resources

1. [Slack Key Medley](#)
2. [SAMHSA's Working Definition of Recovery](#)
3. [12 Core Functions of a Substance Abuse Counselor](#)
4. [Ahupua'a Model](#)
5. [A Brief History of Digital Health](#)
6. [Telehealth - Mayo Clinic](#)
7. [15 Mental Health Apps that are Disrupting Healthcare](#)
8. [5 Digital Health Tools That Are Changing Healthcare](#)
9. [Leveraging Technology to Enhance Addiction Treatment and Recovery Evidence - Chess Health](#)
10. [ChatGPT Is Cutting Non-English Languages Out of the AI Revolution](#)
11. [Indigenous groups fear culture distortion as AI learns their languages](#)
12. [New Frontiers in Research Fund](#)
13. [UH part of \\$17M grant to improve AI through Indigenous knowledge](#)
14. [Indigenous Protocol and Artificial Intelligence Position Paper](#)
15. [Te reo Māori Speech Recognition](#)
16. [Indigenous Knowledge Graph](#)
17. [Intelligent Voices of Wisdom: Learnings Interactive Report](#)
18. [How Native Americans Are Trying to Debug A.I.'s Biases](#)
19. [Hawaiian Slack Key Guitar - Masters Instrumental Collection](#)
20. [Transforming Hawaii Food System Together](#)
21. [SuiSensor](#)
22. [AI Assisted Surgery](#)
23. [ChatGPT](#)
24. [Oxford Languages](#)
- 25.



Hawai'i TRAIN & YouTube



‘Ulu State Disaster Response

Native Hawaiian Cultural Intervention

Artwork by Keali‘imakamana‘onalani Parker Po‘oloa



Evaluation

Please complete the evaluation feedback survey:

https://mapuna.qualtrics.com/jfe/form/SV_cAN48no2RfsVXx4

The evaluation is required to receive Continuing Education Units (CEUs).

We look forward to your feedback



SCAN THE QR CODE TO REGISTER



HĀNAI AHU: ANCHORING CULTURE IN SUBSTANCE USE TREATMENT & PREVENTION MODELS

Creating Culturally-Safe Spaces for Behavioral Health Programming

EARN UP TO ONE (1) CONTINUING
EDUCATION UNIT!
CSAC, CPS, CCS, CCJP, CSAPA
(**Note: Only available for HAWAII)

Hosted by
Sami Birmingham-Babauta, MPH

Learning Objective 1

Participants will engage in an immersive learning experience that will equip them to integrate and advocate for culturally and linguistically competent behavioral health care for Native Hawaiians and other Pacific Islanders in line with the cultural component of SAMHSA's Recovery Model.

Learning Objective 2

Participants will identify strategies to create culturally-safe spaces in their programming in line with the cultural considerations for Core Function III: Orientation in the 12 Core Functions of a Substance Abuse Counselor.

Learning Objective 3

Participants will examine *The Impacts of Colonization on Ahupua'a Conceptualization* by Papa Ola Lōkahi and understand it's utilization in developing culturally-safe spaces of learning and healing.



Thursday, July 6, 2023
9AM-10AM HST

OR REGISTER AT
mapunalab.com

PRESENTED BY THE AANHPI OHANA CENTER OF EXCELLENCE & MĀPUNA LAB



OHANA
CENTER OF EXCELLENCE



Hū Ka Wai Māpuna

Arranged by Kauilanuimakehaikalani Kealiikanakaoleohaililani

Hū ka Wai Māpuna
Māpuna kapu ka hāhā
Ha‘a inu, Ha‘a ola
Ha‘a kapu, Ha‘a noa
E nā kupukupu
O nā kupuna e
E mālama ka māpuna
Mālama ka māpuna e
I ola loa e, i maui ola e.

Conflict is the catalyst for evolution
More to surface, less to hide
Held by systems of ancestral resilience
I sustain the process of truth-telling,
healing, and emotional intelligence
to heal generational trauma and disparity
to go beyond performative health
to truly be well

